

Listing of Claims:

The following listing of claims replaces all prior versions.

1. (CURRENTLY AMENDED) A method for subliminally encoding data in the image portion of a video signal, wherein the resolution of the image is decreased by a factor of N, comprising:

selecting a plurality of $2N$ consecutive lines in a frame of the video signal;

increasing the luminances of N consecutive lines by an amount that is not visually perceptible; and

decreasing the luminances of the next N consecutive lines;

such that the encoding survives a subsequent decrease in resolution by a factor of $N/2$ by increasing and decreasing the luminances on N adjacent lines in a prescribed pattern that does not affect the image perceived by the human eye;

whereby the encoding can be decoded after said reduction in resolution.

2. (CURRENTLY AMENDED) A method for subliminally encoding data in the image portion of a video signal such that the encoding survives a subsequent decrease in resolution in accordance with claim 1 wherein when the luminance of a each line is increased or decreased, the entire line is changed the same way uniformly.

3. (CURRENTLY AMENDED) A method for subliminally encoding data in the image portion of a video signal such that the encoding survives a subsequent decrease in resolution in accordance with claim 2 wherein the luminances of said N lines is varied according to a sinusoidal function.

4. (CURRENTLY AMENDED) A method for subliminally encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 2 wherein the luminances of said N lines is changed according to a sawtooth function.

5. (CURRENTLY AMENDED) A method for subliminally encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 2 wherein the luminance is increased a constant amount for $N/2$ lines and decreased by the same constant amount for $N/2$ lines.

6. (CURRENTLY AMENDED) A method for subliminally encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 2 wherein for each of said N lines for which the luminance is increased by a certain amount there is a corresponding line for which the luminance is decreased by the same amount.

7. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution by comprising:~~

modifying a group of adjacent lines of a frame by increasing and decreasing the luminances of a said group of adjacent lines in a frame following a prescribed pattern that does not affect the image perceived by the human eye, the luminances of the lines being increased and decreased by amounts selected to render said increases and decreases substantially invisible to a human eye, wherein in such a

way that wherein in said prescribed pattern wherein substantially all of most of the lines
are adjacent other lines whose luminances are changed in the same direction;

transmitting said video signal with said modified lines;

downrezing said video signal; and

extracting said data from said modified lines, wherein said data survives
said downrezing.

8. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 7 wherein when the luminance of a line is increased or decreased uniformly.

9. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 7 wherein the luminances of said lines are changed according to a sinusoidal function.

10. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 7 wherein the luminances of said lines are changed according to a sawtooth function.

11. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 7 wherein the luminance is increased a constant

amount for half the lines and decreased by the same constant amount for the other half of the lines of said group.

12. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~such that the encoding survives a subsequent decrease in resolution~~ in accordance with claim 7 wherein for each of said lines for which the luminance is increased by a certain amount there is a corresponding line for which the luminance is decreased by the same amount.

13. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal ~~by comprising~~ increasing and decreasing the luminances of a group of lines within a portion of a frame of the video signal in a prescribed pattern ~~that selected to eliminate any effects on~~ ~~does not affect~~ the image perceived by the human eye, the luminances of the lines being increased and decreased in such a way that ~~most~~ ~~ef~~ substantially all of the lines are adjacent other lines whose luminances are changed in the same direction.

14. (CURRENTLY AMENDED) A method for encoding data in the image portion of a video signal in accordance with claim 13 wherein when the luminance of a line is increased or decreased, the entire line is changed ~~the same way~~ uniformly.

15. (ORIGINAL) A method for encoding data in the image portion of a video signal in accordance with claim 13 wherein the luminances of said lines are changed according to a sinusoidal function.

16. (ORIGINAL) A method for encoding data in the image portion of a video signal in accordance with claim 13 wherein the luminances of said lines are changed according to a sawtooth function.

17. (ORIGINAL) A method for encoding data in the image portion of a video signal in accordance with claim 13 wherein the luminance is increased a constant amount for half the lines and decreased by the same constant amount for the other half of the lines.

18. (ORIGINAL) A method for encoding data in the image portion of a video signal in accordance with claim 13 wherein for each of said lines for which the luminance is increased by a certain amount there is a corresponding line for which the luminance is decreased by the same amount.

19. (NEW) A method of encoding data in the image portion of the video signal wherein said video signal is downrezed by a factor N further comprising :

selecting a group of $2N$ successive lines from a frame of the video signal;

raising the amplitude of N successive lines of said group by an amount small enough so that the change in the video signal is substantially imperceptible; and

lowering the amplitude of the remaining N successive lines of said group by the same amount.

20. (NEW) A method of encoding data according to claim 19 further comprising decoding said data, wherein the decoded data is unaffected by said downrezing.